REMARKS

By this Amendment, claims 42, 63, 72 and 80 are amended. Claims 43-62, 64-71, 73-79 and 81-82 remain in the application. Thus, claims 42-82 are active in the application. Reexamination and reconsideration of the application are respectfully requested.

On pages 2 and 13 of the Office Action, claims 42-59, 61-72, 74-80 and 82 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Teece (U.S. 5,537,605) in view of May (U.S. 6,021,492).

Without intending to acquiesce to this rejection, independent claims 42, 63, 72 and 80 have each been amended in order to more clearly illustrate the marked differences between the present invention and the applied references. Accordingly, the Applicants respectfully submit that the present invention is patentable over the applied references for the following reasons.

The present invention provides a network control system in an AVC system to which a plurality of AV apparatuses are connected via a transmission line. The network control system of the present invention comprises a controller which is equipped with a user interface, and a device which is operable to be controlled.

The controller of the present invention is operable to check each device's version information inside the device, to read the in-device apparatus information and the version information inside the device from the device, and to detect a change inside the device based on the read version information. Furthermore, the controller is operable to check and read each device's element version information that shows a version of the component elements of the function information table of the device, and to detect a change of information in the function information table by using the element version information when the controller uses the information in the function information table of the device. In addition, the present invention provides that the controller is operable to issue a notification request to the device for requesting notification of the change of the in-device apparatus information in the device, and to check the version information in the device.

Moreover, the present invention provides that the checking of the version information inside the device to be controlled is performed exclusively by the controller and is not performed by the device.

The present invention also provides a network control method having a controller which is equipped with a user interface and which is connected to a device to be controlled via a

transmission line. The method of the present invention performs similar operations to the system described above.

As descried beginning at line 28 on page 28 of the substitute specification, for example, the method and system of the present invention provide that once the controller is communicated with a device to be controlled, every time the state in the target device changes after the establishment of the communication, the device spontaneously or automatically sends updated version information, which is indicative of the change in sate in the device, to the controller by forwarding the secondary response 121 to the controller, as shown in Figure 5, for example, where the secondary response (updated version information) includes the version information of the device and the ID of objects that are changed. Accordingly, since the device to be controlled spontaneously or automatically sends the updated information to the controller, the controller can instantly know the change in the state of the device.

Furthermore, the method and system of the present invention provide that when a change in state in the device to be controlled occurs, it is not necessary to send a request message from the controller to the target device in response to an input operation by the user. That is, every time a change in state in the device to be controlled occurs, the device is operable to spontaneously or automatically send the update version information to the controller, without sending a user input request message from the controller to the device.

By this configuration, the method and system of the present invention provide, for example, that in the case where a tape reaches the tail end during reproduction by a VTR and rewinding of the tape begins automatically, the VTR (device to be controlled) changes the operation screen display to a display which is indicative of "during rewinding" (see lines 16-24 on page 29 of the substitute specification).

Accordingly, the present invention provides that every time a change in state in the device occurs, the device is operable to spontaneously or automatically send the updated version information which is indicative of the change in the state of the device to the controller, without sending a user input request message from the controller to the device.

Independent claims 42, 63, 72 and 80 have each been amended to recite this novel feature of the present invention.

Teece discloses an apparatus and method for controlling controllable devices 12a-12n connected to a control unit 10 by means of the control unit 10. The controllable device 12 is

responsive to a request from the control unit 10 to supply the control structure definitions of the controllable device 12 to the control unit 10. The control unit 10 responds to an initial operation by transmitting a message to the controllable device 12, and responds to a message from the controllable device 12 to carry out the programming of the control unit 10. That is, by providing the control unit 10 with the control structure definitions of the controllable device 12, the control unit 10 is programmed to act as if it were a dedicated control unit 10 for the controllable device 12 connected to it (see Column 2, lines 1-25, Column 8, line 60 to Column 9, line 47). Teece also discloses that control structure definitions can be supplied in the form of menus and/or representations of control parameters for display on the control unit.

In item 3 on page 19 of the Office Action, the Examiner asserted that Teece discloses, in Column 10, lines 15-40, Column 11, lines 6-23 and Column 12, lines 5-20, that every time a change in the controllable devices 12a-12n occurs, the controllable devices 12a-12n automatically send updated version information which is indicative of the change in state in the device to the control unit 10.

However, with reference to Column 10, lines 15-40, Teece discloses that the functions performed by the control unit 10 are "in response to user operation of a key...[where] such a functional operation can be to request a new menu, to select a sub-menu from a main menu or to select an item or entry in a sub-menu." Further, Teece discloses that "the operation of a key causes the control unit, under control of the microprocessor 32[,] to transmit an appropriate message to the controllable unit concerned" (i.e., the target controllable device 12). In addition, Teece discloses that in response to the user operation of a key, the controllable device carries out the functions that are required and descriptor information is sent back to the control unit, which can then cause the display to be updated.

Accordingly, even if the Examiner interprets Teece as disclosing that the controllable device 12 is operable to automatically send the updated version information to the control unit 10 upon a change in state in the controllable device 12, the controllable device 12 of Teece is clearly disclosed as sending its updated version information only after the control unit 10 sends a request message to the controllable device 12 in response to an input operation by the user. Column 11, lines 6-23 and Column 12, lines 5-20 of Teece similarly disclose that the controllable device 12 sends its updated version information to the control unit 10 after the control unit 10 sends a request message to the controllable device 12 in response to an input operation by the user.

In stark contrast to Teece, claims 42, 63, 72 and 80 recite that every time a change in state in the device occurs, the device is operable to spontaneously or automatically send the updated version information which is indicative of the change in the state of the device to the controller, without sending a user input request message from the controller to the device.

Accordingly, in view of the above, Teece clearly does not disclose or suggest this limitation of claims 42, 63, 72 and 80.

Furthermore, as acknowledged by the Examiner, Teece discloses checking the version information of the controllable device 12 is performed by the controllable device 12 and not by the control unit 10. To teach this feature of claims 42, 63, 72 and 80, the Examiner applied May, which discloses a management information system (MIS) for controlling and interrogating remote computers.

In Column 7, line 41 to Column 8, line 16, May discloses that the "MIS system requests from the remote computer the version number of the image of the software on the hard drive [and] the remote computer processes the requests and forwards the requested data to the MIS system" (see Column 7, line 65 to Column 8, line 2). Accordingly, May discloses that after the MIS system (i.e., controller) establishes a valid connection with the remote computer (i.e., device to be controlled), the MIS system inquires about the version information of the remote computer when necessary. More specifically, May discloses that MIS sends a request message to the remote computer only when requiring to obtain a version number of the image data of the remote computer.

According to the disclosure of May, since the device to be controlled forwards its version information to the controller only when required, in the case, for example, where an operation in a VCR is automatically stopped at the end of a tape, the controller cannot be notified of the change of the operation of the state of the device unless the controller specifically requests that the version information which is indicative of the change in the operation state of the device be sent to the controller.

Therefore, similar to Teece, May also clearly does not disclose or suggest that every time a change in state in the device occurs, the device is operable to spontaneously or automatically send the updated version information which is indicative of the change in the state of the device to the controller, without sending a user input request message from the controller to the device, as recited in claims 42, 63, 72 and 80.

Accordingly, Teece and May both fail to disclose or suggest each and every limitation of claims 42, 63, 72 and 80.

Therefore, no obvious combination of Teece and May would result in the inventions of claims 42, 63, 72 and 80 since Teece and May, either individually or in combination, clearly fail to disclose or suggest each and every limitation of claims 42, 63, 72 and 80.

Consequently, claims 42, 63, 72 and 80 are clearly patentable over Teece and May.

On pages 17-18 of the Office Action, dependent claims 60, 73 and 81 were rejected under Teece in view of May and further in view of Jerding et al. (U.S. 6,792,616).

Jerding et al. discloses a system and method for providing a plurality of programming services for a user in a cable television system. Jerding et al. discloses that by using a plurality of data tables, the system is able to access a plurality of different television services, such as cable channels, interactive program guides, and online services such as Internet browsing and e-mail (see Column 11, lines 39-56).

However, similar to Teece and May, Jerding et al. clearly does not disclose or suggest that every time a change in state in the device occurs, the device is operable to spontaneously or automatically send the updated version information which is indicative of the change in the state of the device to the controller, without sending a user input request message from the controller to the device, as recited in claims 42, 63, 72 and 80.

Thus, Jerding et al. clearly does not cure the deficiencies of Teece and May for failing to disclose or suggest each and every limitation of claims 42, 68, 72 and 80. Therefore, no obvious combination of Teece and Jerding et al. would result in the inventions of claims 42, 68, 72 and 80 since Teece and Jerding et al., either individually or in combination, clearly fail to disclose or suggest each and every limitation of claims 42, 68, 72 and 80.

Accordingly, claims 42, 68, 72 and 80 are clearly patentable over Teece, May and Jerding et al.

Furthermore, it is submitted that the clear distinctions discussed above are such that a person having ordinary skill in the art at the time the invention was made would not have been motivated to modify Teece and Jerding et al. in such as manner as to result in, or otherwise render obvious, the present invention as recited in claims 42, 68, 72 and 80.

Therefore, it is submitted that the claims 42, 68, 72 and 80, as well as claims 43-67, 69-71, 73-79 and 81-82 which depend therefrom, are clearly allowable over the prior art as applied by the Examiner.

In view of the foregoing amendments and remarks, it is respectfully submitted that the present application is clearly in condition for allowance. An early notice thereof is respectfully solicited.

If, after reviewing this Amendment, the Examiner feels there are any issues remaining which must be resolved before the application can be passed to issue, the Examiner is respectfully requested to contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

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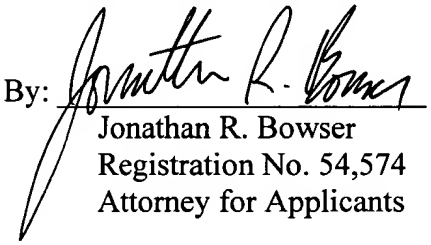
By: 

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September 11, 2006